REMARKS

The independent claims are 1 and 18. In both cases, it is stated that three photosites in the first linear array correspond to each single photosite in the second linear array, or that there are three photosites along the array direction in each cell, each cell further including photosites arranged perpendicular to the array direction. Support for this "3:1" feature is shown, for example, in Figures 9-11 of the Specification as filed: in those embodiments (which are variously covered by different dependent claims), there are three white W photosites corresponding to a color photosite (B, G, or R) in each "cell" in the photosensitive device. Further, the independent claims 1 and 18 have been amended to recite that one set of photosites has a different color filtering arrangement than the other.

The claims are rejected over Usui in view of Suggs. However, in neither reference is there ANY disclosure of the 3:1 ratio of photosites in an adjacent array or within a cell. Fig. 11 of Usui shows an arrangement of cells 401, each cell having two photosites 40A, 40B across the array direction. The cited discussion in Suggs, starting at column 4, line 39, relates to how a *doubling* of resolution among different arrays— mapping a single large photosite to a 2x2 array of smaller photosites— can be used to improve certain types of performance: there is no discussion of any other ratio of sizes of photosites, nor any indication of why any other ratio, such as the 3:1 implied by the claimed invention, would be desirable.

Further, the claims reflect that the different sets of photosites have different color filter arrangements, and that all of the photosites in at least one linear array are filtered for one color: for example, in Figures 9-11 of the Specification as filed, there are three white W photosites corresponding to a color photosite. This feature is not taught or suggested by either reference. Suggs does not discuss *color* filter arrangements at all, with regard to different-resolution linear arrays. Fig. 11 of Usui, which shows different resolutions of photosites along the array direction, does not show, as recited in claim 1, that the

"high-resolution" photosites 40A, 40B, 41A, 41B, 42A, 42B, are not all filtered to accept the same color: as stated starting at column 5, line 62, the "A" photosites are red and the "B" photosites are green, causing an alternating pattern across the array. The idea in Usui is simply to have a triad of a red, blue, and green photosite within each cell 401. This teaching is against the claimed invention, in which a special "high resolution" row of photosites is provided, all of the high-resolution photosites being filtered to be sensitive to the same color, such as white or green.

The difference between the color triad shown in Usui and the claimed invention is not a mere matter of design choice. The claimed layout of photosites provides a distinct practical advantage when scanning original images of various types, as described in the Specification as filed:

> With text, the sharpness of the recorded image, which relates to the spatial resolution of the recording process, is desirably maximized. With images such as photographs, however, sharpness may not be as much of a premium. Even where complicated images such as full-color photographs are being recorded, there may be disadvantages to obtaining a maximal amount of color data from an original image. (Page 2)
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> In overview, each of the different configurations in the figures share the common characteristic that one particular linear array defines, along its array direction, (that is, horizontally in the view of the figures), one spatial resolution, while other linear arrays have a different spatial resolution along the array direction. When an image to be recorded is caused to move relative to the array in a process direction perpendicular to the array direction, one particular linear array having the smallest photosites along the array direction will record light from the image at a high resolution, by virtue of the relatively small areas on the image recorded by the photosites. In contrast, the other linear arrays, having relatively larger photosite areas, will record relatively larger small areas of reflected light from the image. (Page 5)

In other words, the present invention as variously claimed provides a set of small photosites (all sensitive to the same color) for high-resolution scanning

especially useful for text, AND a set of larger photosites for low-resolution scanning, such as is useful for color-intensive images. For these reasons, the claimed invention, having in combination a high-resolution set of photosites and a low-resolution set of photosites, provides practical advantages that are not contemplated by either reference, alone or in combination.

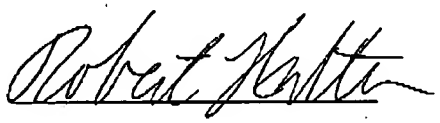
Claims 3 and 15, which are dependent from claim 1, are rejected over Usui in view of Suggs, and further in view of Spears. Spears is cited to show a use of white filtering. Nonetheless, regardless of the art shown in Spears, Spears cannot be combined with the other references to show base claim 1 is not patentable over the references. Indeed, Spears clearly shows only a 2:1 ratio of different-sized photosites, not the 3:1 ratio of the independent claims. There is simply no teaching of the 3:1 ratio in the cited art, and certainly no suggestion of why a 3:1 ratio would be desirable.

The claims are therefore in condition for allowance.

No additional fee is believed to be required for this amendment; however, the undersigned Xerox Corporation attorney authorizes the charging of any necessary fees, other than the issue fee, to Xerox Corporation Deposit Account No. 24-0025.

In the event the Examiner considers personal contact advantageous to the disposition of this case, he is hereby requested to call the undersigned attorney at (585) 423-3811, Rochester, NY.

Respectfully submitted,



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